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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,990	04/03/2001	Masahito Yamamoto	35.C15271	9692

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EXAMINER
SALL, EL HADJI MALICK

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/823,990	YAMAMOTO, MASAHITO
	Examiner	Art Unit	
	El Hadji M Sall	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04/03/01</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-40</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-40</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

1.   ***DETAILED ACTION***

This action is responsive to the amendment filed on November 8, 2004. Claims 1
- 40 are pending. Claims 1 - 40 represent Service Management apparatus for managing
service information for services present in network system and apparatus for instructing
service management apparatus.

2.   ***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent
by another filed in the United States before the invention thereof by the applicant
for patent, or on an international application by another who has fulfilled the
requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before
the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1-6, 9, 11-16, 19, 21-26,29, 31-36 and 39 are rejected under 35

U.S.C. 102(e) as being anticipated by Saito U.S. 6,563,796.

Saito teaches the invention as claimed including apparatus for quality of service
evaluation and traffic measurement (see abstract).

As to claim 1, Saito teaches a service management apparatus for use in a network system capable of providing various services dispersed in plural apparatuses, managing service information of the various services present on the network system and transferring the managed service information in response to a request from an external apparatus, the service management apparatus comprising:

test means for executing a process of a trial use of one of the various services provided by said apparatus (figure 14; column 15 line 66-column 16, line 11, Saito discloses estimation from the respective timestamps of each cell or packet (i.e. testing of one of the various services));

evaluation means for evaluating the quality of the service, based on a result of the trial use of the service executed by said test means (column 11, lines 16-23, Saito discloses evaluating the quality of the network when the traffic is increased by a certain amount; column 14, lines 50-51, Saito discloses evaluating the quality of service by reproducing the traffic in lines);

renewal means for renewing the managed service information based on the evaluated quality renewal means for renewing the managed service information based on the evaluated quality evaluated by said evaluation means (column 11, lines 24-27, Saito discloses the requirement for renewal of timestamp).

As to claim 2, Saito teaches a service management apparatus according to claim 1, wherein said evaluation means evaluates the result of the trial use of the service executed by said test means by a predetermined evaluation function (see abstract, Saito discloses the estimated arrival times at the attention point, produced by the arrival time estimation section, according to a predetermined logic equation).

As to claim 3, Saito teaches a service management apparatus according to claim 2, wherein said renewal means deletes the managed service information in case the evaluation by the predetermined evaluation function does not meet a predetermined reference (column 11, lines 48-54, Saito discloses the cell info register 302 is written to

the readout register 303. CPU 215 reads the content of the readout register 303. The object VPI/VCI in the cell info register 302 is deleted).

As to claim 4, Saito teaches a service management apparatus according to claim 2, wherein the predetermined evaluation function evaluates the quality of the service based on the time required for calling the service (column 3, lines 20-35, Saito discloses in this case, the estimating section may include means for estimating an arrival time, and where said estimated arrival time of said first cell is given by a sum of base time T...).

As to claim 5, Saito teaches a service management apparatus according to claim2, wherein the predetermined evaluation function evaluates the quality of the service based on an error frequency of generated by a service calling (column 19, lines 56-66, Saito discloses the low layer processing section 4, first performs such tasks as taking out cells from SDH frame and error correction using HEC and sends the cells to the state managing section).

As to claim 6, Saito teaches a service management apparatus according to claim1, wherein:

said test means executes an access process for writing and reading data on trial basis for a storage service (column 11, lines 42-54, Saito discloses the cell count in the cell info register 302...and this result together with the timestamp stored in the cell info register 302 is written to the readout register 303. CPU 215 reads the content of the readout register 303. The object VPI/VCI in the cell info register 302 is deleted; column 14, lines 40-43, Saito discloses when the packet count reaches...CPU 1021 reads out the time value and the value of the packet length counter, and stores this information in apparatus memory 1022).

said evaluation means evaluates the quality of the storage service based on the result of the access process performed by said test means (column 14, lines 43-49, Saito discloses when M timer values are obtained, CPU 1021 calculates average packet

arrival interval A, standard deviation S for packet arrival intervals, average packet length LA...).

As to claim 9, Saito teaches a service management apparatus for use in a network system capable of providing various services dispersed in plural apparatuses, for managing the service information on the various services present on said network system and transferring the managed service information in response to a request from an external apparatus, said apparatus comprising:

test means for executing a process of a trial use of a service of another apparatus belonging to the same group as that of said apparatus (figure 14; column 15 line 66-column 16, line 11, Saito discloses estimation from the respective timestamps of each cell or packet (i.e. testing of one of the various services));

evaluation means for evaluating the quality of the service, based on a result of the trial use of the service executed by said test means(column 11, lines 16-23, Saito discloses a QoS evaluation apparatus of the second embodiment is similar to the apparatus in the first embodiment and is related to evaluating the quality (cell loss caused by buffer overflow and the like) of the network...);

deletion means for instructing, in a case the quality evaluated by said evaluation means does no meet a predetermined reference, the service management apparatus to delete the service information from said service management apparatus (column 7, lines 3-10, Saito discloses...In the cell arrival detection section 123, payload of the arrived cells are removed, cells are timestamped and are sent to the last cell detection section 214).

Claims 11-16, 19, 21-26, 29, 31-36 and 39 do not teach or define any new limitations above claims 1-6, and 9, and therefore are rejected for similar reasons.

4.   *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

5.   Claims 7, 17, 27 and 37 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Saito U.S. 6,563,796 in view of Kondylis et al. U.S. 6,621,805.

Saito teaches the invention substantially as claimed including apparatus for quality

of service evaluation and traffic measurement (see abstract).

As to claim 7, Saito teaches a service management apparatus according to claim

1.

Saito fails to teach said evaluation means detects the number of colors or

recording sheets available in the service and evaluates the quality of the service based

on the number of colors or recording sheets available in the service.

However, Kondylis teaches method and apparatus for multicasting real-time

variable bit-rate traffic in wireless ad-hoc network. Kondylis teaches said evaluation

means detects the number of colors or recording sheets available in the service and

evaluates the quality of the service based on the number of colors or recording sheets

available in the service (see abstract; column 12, lines 11-12, Kondylis discloses RC_{ds}

represents the desired number of receive colors, as estimated by the node based on the

current traffic load).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Saito in view of Kondylis to introduce evaluation means detects the number of colors available in the service and to evaluate the quality based on the number of colors available in the service. One would be motivated to do so to prevent packet collisions (see abstract).

Claims 17, 27 and 37 do not teach or define any new limitations above claim 7, and therefore are rejected for similar reasons.

6.   Claims 8, 18, 28 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito U.S. 6,563,796 in view of Elliot et al U.S. 5,867,495.

Saito teaches the invention substantially as claimed including apparatus for quality of service evaluation and traffic measurement (see abstract).

As to claim 8, Saito teaches a service management apparatus according to claim1.

Saito fails to teach the plural apparatus include a printer.

However, Elliott teaches system, method and article of manufacture for communications utilizing calling, plans in a hybrid network. Elliot teaches a printer (figure 1, item 30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Saito in order to include a printer in the input/output control section of figure 1. One would be motivated to do so to allow the QoS evaluation apparatus to print out the monitored and evaluated QoS.

Claims 18, 28 and 38 do not teach or define any new limitations above claims 1-6, and 9, and therefore are rejected for similar reasons.

7.   Claims 10, 20, 30 and 40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Saito U.S. 6,563,796 in view of Hamada et al. U.S. 5,581,544.

        Saito teaches the invention substantially as claimed including apparatus for quality

of service evaluation and traffic measurement (see abstract).

        As to claim 10, Saito teaches a service management apparatus for use in a

network system capable of providing various services dispersed in plural apparatuses,

for managing information of various services present on said network system and

transferring the managed service information in response to a request from an external

apparatus, the apparatus comprising:

        test means for executing a process of the trial use of a service of another

apparatus belonging to a same group as that of said apparatus (figure 14; column 15

line 66-column 16, line 11, Saito discloses estimation from the respective timestamps of

each cell or packet (i.e. testing of one of the various services));

        evaluation means for evaluating the quality of said service, based on the result of

the trial use of the service (column 11, lines 16-23, Saito discloses evaluating the quality

of the network when the traffic is increased by a certain amount; column 14, lines 50-51,

Saito discloses evaluating the quality of service by reproducing the traffic in lines).

        Saito fails to teach explicitly substitution means for instructing, in case the

evaluated quality does not meet a predetermined reference, said service management

apparatus to substitute the service provided by said another apparatus with a service

provided by said apparatus.

        However, Hamada teaches method and apparatus for evaluating QoS in ATM

multiplexing apparatus in which priority control is performed and for controlling call

admissions and optimizing priority control on the basis of the evaluation. Hamada

teaches substitution means for instructing, in a case the quality evaluated by said

evaluation means does not meet a predetermined reference, said service management

apparatus to substitute the service provided by said another apparatus with a service

provided by said apparatus (column 12, lines 7-16, Hamada discloses initial value dL_0 is

substituted for the amount of change dL new buffer amount are calculated. For class m for which the buffer amount is to be reduced, the QoS is evaluated using the new buffer amount).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Saito in view of Hamada to provide substitution means for instructing, in case the evaluated quality does not meet a predetermined reference, said service management apparatus to substitute the service provided by said another apparatus with a service provided by said apparatus. One would be motivated to do so in order to solve a state equation using the matrix S_t.

Claims 20, 30 and 40 do not teach or define any new limitations above claims 10, and therefore are rejected for similar reasons.

8.   *Response to Arguments*

Applicant's arguments filed 11/12/04 have been fully considered but they are not persuasive.

(A)   As to claim 1, applicant argues that nothing has been found in Saito that would teach or suggest test means executing a process of a trial use of one of the various services provided by the apparatuses, and evaluation means evaluating the quality of service based on the result of the trial use of the service executed by the test means.

In regards to point (A), examiner respectfully disagrees.

On column 15, line 66 – column 16, line 11, Saito discloses analysis are performed by near real-time simulation (i.e. test means executing a process of a trial use of one of the various services provided by the apparatuses).

On column 11, lines 16-23 and on column 14, lines 50-51, Saito discloses

evaluating the quality of service (i.e. evaluation means evaluating the quality of service).

Based on a result of the trial use of the service executed by the test means, a quality of

service could be evaluated.

(B)   As to claim 10, applicant argues if Saito and Hamada et al. were to be

combined in the manner suggested by the examiner, assuming such a combination

would even be permissible, the result would not meet the terms of claim 10.

In regards to point (B), examiner respectfully disagrees.

On column 12, lines 7-16, Hamada discloses for the amount of change dL, initial

value dL_0 is substituted, and the quality of service is evaluated using the new buffer

amount (i.e. substituting means for instructing, in a case the quality evaluated by said

evaluation means does not meet a predetermined reference).

9.   *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

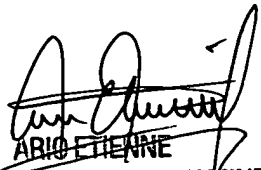MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-4010.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

El Hadji Sall
Patent Examiner

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